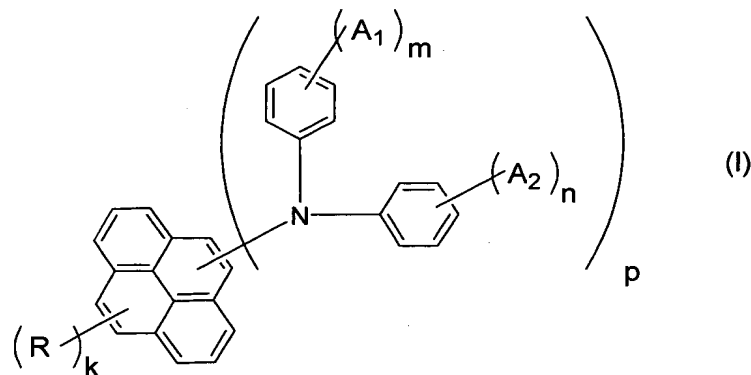


## CLAIMS

1. An aromatic amine derivative represented by the following general formula (I):



wherein R is a hydrogen atom, a substituted or unsubstituted alkyl group having 1 to 50 carbon atoms, a substituted or unsubstituted aryl group having 5 to 50 carbon atoms, a substituted or unsubstituted aralkyl group having 1 to 50 carbon atoms, a substituted or unsubstituted cycloalkyl group having 3 to 50 carbon atoms, a substituted or unsubstituted alkoxy group having 1 to 50 carbon atoms, a substituted or unsubstituted aryloxy group having 5 to 50 carbon atoms, a substituted or unsubstituted arylamino group having 5 to 50 carbon atoms, a substituted or unsubstituted alkylamino group having 1 to 20 carbon atoms, a cyano group or a halogen atom; k is an integer of 1 to 9, and when k is 2 or more, a plurality of R groups may be the same with or different from each other;

A<sup>1</sup> and A<sup>2</sup> are each independently a hydrogen atom, a substituted or unsubstituted alkyl group having 1 to 50 carbon atoms, a substituted or unsubstituted aryl group having 5 to 50 carbon atoms, a substituted or unsubstituted aralkyl group having 1 to 50 carbon atoms, a substituted or unsubstituted cycloalkyl group having 3 to 50 carbon atoms, a substituted or unsubstituted alkoxy group having 1 to 50 carbon atoms, a substituted or unsubstituted aryloxy group having 5 to 50 carbon atoms, a substituted or unsubstituted arylamino group having 5 to 50 carbon atoms, a substituted or unsubstituted alkylamino group having 1 to 20 carbon atoms, a cyano group or a halogen atom; m and n are each an integer of 0 to 5 wherein when m is 2 or

more, a plurality of  $A^1$  groups may be the same with or different from each other and may be bonded to each other to form an saturated or unsaturated ring, and when  $n$  is 2 or more, a plurality of  $A^2$  groups may be the same with or different from each other and may be bonded to each other to form an

5 saturated or unsaturated ring,

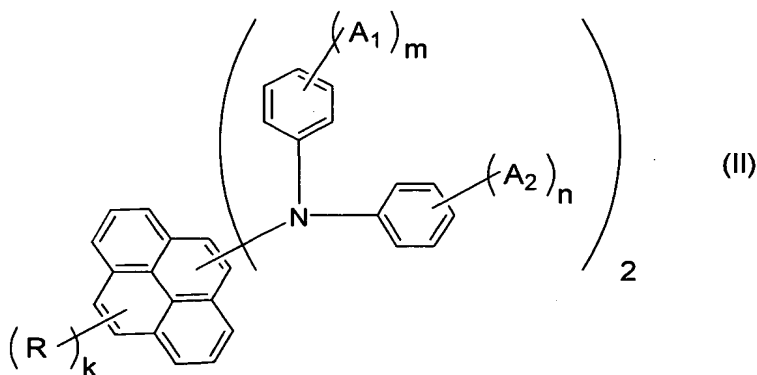
with the proviso that at least one of  $A^1$  and  $A^2$  contains any of a substituted or unsubstituted alkyl group having 2 or more carbon atoms, a substituted or unsubstituted aralkyl group having 2 or more carbon atoms, a substituted or unsubstituted cycloalkyl group having 3 or more carbon atoms,

10 a substituted or unsubstituted alkoxy group having 2 or more carbon atoms and a substituted or unsubstituted alkylamino group having 2 or more carbon atoms; and

$p$  is an integer of 1 to 9, and when  $p$  is 2 or more, a plurality of groups being represented within the parenthesis ( ) <sub>$p$</sub>  of the general formula (I) may

15 be the same with or different from each other, and ( $k + p$ ) is an integer of 10 or smaller.

2. An aromatic amine derivative represented by the following general formula (II):



20

wherein  $R$  is a hydrogen atom, a substituted or unsubstituted alkyl group having 1 to 50 carbon atoms, a substituted or unsubstituted aryl group having 5 to 50 carbon atoms, a substituted or unsubstituted aralkyl group having 1 to 50 carbon atoms, a substituted or unsubstituted cycloalkyl group having 3 to

25 50 carbon atoms, a substituted or unsubstituted alkoxy group having 1 to 50 carbon atoms, a substituted or unsubstituted aryloxy group having 5 to 50

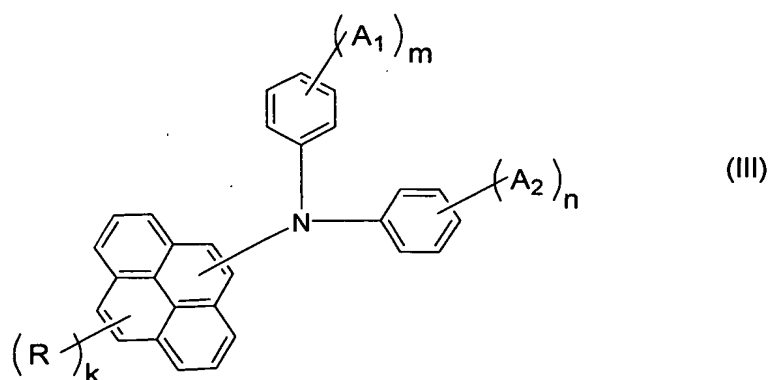
carbon atoms, a substituted or unsubstituted arylamino group having 5 to 50 carbon atoms, a substituted or unsubstituted alkylamino group having 1 to 20 carbon atoms, a cyano group or a halogen atom;  $k$  is an integer of 1 to 9, and when  $k$  is 2 or more, a plurality of R groups may be the same with or different from each other;

$A^1$  and  $A^2$  are each independently a hydrogen atom, a substituted or unsubstituted alkyl group having 1 to 50 carbon atoms, a substituted or unsubstituted aryl group having 5 to 50 carbon atoms, a substituted or unsubstituted aralkyl group having 1 to 50 carbon atoms, a substituted or unsubstituted cycloalkyl group having 3 to 50 carbon atoms, a substituted or unsubstituted alkoxy group having 1 to 50 carbon atoms, a substituted or unsubstituted aryloxy group having 5 to 50 carbon atoms, a substituted or unsubstituted arylamino group having 5 to 50 carbon atoms, a substituted or unsubstituted alkylamino group having 1 to 20 carbon atoms, a cyano group or a halogen atom;  $m$  and  $n$  are each an integer of 0 to 5 wherein when  $m$  is 2 or more, a plurality of  $A^1$  groups may be the same with or different from each other and may be bonded to each other to form an saturated or unsaturated ring, and when  $n$  is 2 or more, a plurality of  $A^2$  groups may be the same with or different from each other and may be bonded to each other to form an saturated or unsaturated ring,

with the proviso that at least one of  $A^1$  and  $A^2$  contains any of a substituted or unsubstituted alkyl group having 2 or more carbon atoms, a substituted or unsubstituted aralkyl group having 2 or more carbon atoms, a substituted or unsubstituted cycloalkyl group having 3 or more carbon atoms, a substituted or unsubstituted alkoxy group having 2 or more carbon atoms and a substituted or unsubstituted alkylamino group having 2 or more carbon atoms; and

two groups being represented within the parenthesis ( )<sub>2</sub> of the general formula (II) may be the same with or different from each other.

3. An aromatic amine derivative represented by the following general formula (III):



wherein R is a hydrogen atom, a substituted or unsubstituted alkyl group having 1 to 50 carbon atoms, a substituted or unsubstituted aryl group having 5 to 50 carbon atoms, a substituted or unsubstituted aralkyl group having 1 to 50 carbon atoms, a substituted or unsubstituted cycloalkyl group having 3 to 50 carbon atoms, a substituted or unsubstituted alkoxy group having 1 to 50 carbon atoms, a substituted or unsubstituted aryloxy group having 5 to 50 carbon atoms, a substituted or unsubstituted arylamino group having 5 to 50 carbon atoms, a substituted or unsubstituted alkylamino group having 1 to 20 carbon atoms, a cyano group or a halogen atom; k is an integer of 1 to 9, and when k is 2 or more, a plurality of R groups may be the same with or different from each other;

A<sup>1</sup> and A<sup>2</sup> are each independently a hydrogen atom, a substituted or unsubstituted alkyl group having 1 to 50 carbon atoms, a substituted or unsubstituted aryl group having 5 to 50 carbon atoms, a substituted or unsubstituted aralkyl group having 1 to 50 carbon atoms, a substituted or unsubstituted cycloalkyl group having 3 to 50 carbon atoms, a substituted or unsubstituted alkoxy group having 1 to 50 carbon atoms, a substituted or unsubstituted aryloxy group having 5 to 50 carbon atoms, a substituted or unsubstituted arylamino group having 5 to 50 carbon atoms, a substituted or unsubstituted alkylamino group having 1 to 20 carbon atoms, a cyano group or a halogen atom; and m and n are each an integer of 0 to 5 wherein when m is 2 or more, a plurality of A<sup>1</sup> groups may be the same with or different from each other and may be bonded to each other to form an saturated or unsaturated ring, and when n is 2 or more, a plurality of A<sup>2</sup> groups may be the same with or different from each other and may be bonded to each other to form an

saturated or unsaturated ring,

with the proviso that at least one of A<sup>1</sup> and A<sup>2</sup> contains any of a substituted or unsubstituted alkyl group having 2 or more carbon atoms, a substituted or unsubstituted aralkyl group having 2 or more carbon atoms, a substituted or unsubstituted cycloalkyl group having 3 or more carbon atoms, a substituted or unsubstituted alkoxy group having 2 or more carbon atoms and a substituted or unsubstituted alkylamino group having 2 or more carbon atoms.

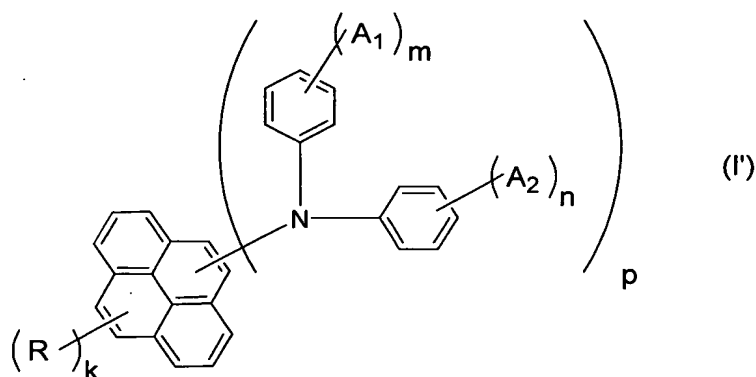
10 4. The aromatic amine derivative according to claim 1, wherein at least one of A<sup>1</sup> and A<sup>2</sup> in the general formula (I) contains any of a substituted or unsubstituted branched alkyl group having 3 or more carbon atoms, a substituted or unsubstituted branched aralkyl group having 3 or more carbon atoms, a substituted or unsubstituted cycloalkyl group having 3 or more carbon atoms, a substituted or unsubstituted branched alkoxy group having 3 or more carbon atoms and a substituted or unsubstituted alkylamino group having 2 or more carbon atoms.

20 5. The aromatic amine derivative according to claim 2, wherein at least one of A<sup>1</sup> and A<sup>2</sup> in the general formula (II) contains any of a substituted or unsubstituted branched alkyl group having 3 or more carbon atoms, a substituted or unsubstituted branched aralkyl group having 3 or more carbon atoms, a substituted or unsubstituted cycloalkyl group having 3 or more carbon atoms, a substituted or unsubstituted branched alkoxy group having 3 or more carbon atoms and a substituted or unsubstituted alkylamino group having 2 or more carbon atoms.

30 6. The aromatic amine derivative according to claim 3, wherein at least one of A<sup>1</sup> and A<sup>2</sup> in the general formula (III) contains any of a substituted or unsubstituted branched alkyl group having 3 or more carbon atoms, a substituted or unsubstituted branched aralkyl group having 3 or more carbon atoms, a substituted or unsubstituted cycloalkyl group having 3 or more

carbon atoms, a substituted or unsubstituted branched alkoxy group having 3 or more carbon atoms and a substituted or unsubstituted alkylamino group having 2 or more carbon atoms.

- 5            7. An aromatic amine derivative represented by the following general formula (I'):



wherein R is a hydrogen atom, a substituted or unsubstituted alkyl group having 1 to 50 carbon atoms, a substituted or unsubstituted aryl group having 5 to 50 carbon atoms, a substituted or unsubstituted aralkyl group having 1 to 50 carbon atoms, a substituted or unsubstituted cycloalkyl group having 3 to 50 carbon atoms, a substituted or unsubstituted alkoxy group having 1 to 50 carbon atoms, a substituted or unsubstituted aryloxy group having 5 to 50 carbon atoms, a substituted or unsubstituted arylamino group having 5 to 50 carbon atoms, a substituted or unsubstituted alkylamino group having 1 to 20 carbon atoms, a cyano group or a halogen atom; **k** is an integer of 1 to 9, and when **k** is 2 or more, a plurality of R groups may be the same with or different from each other;

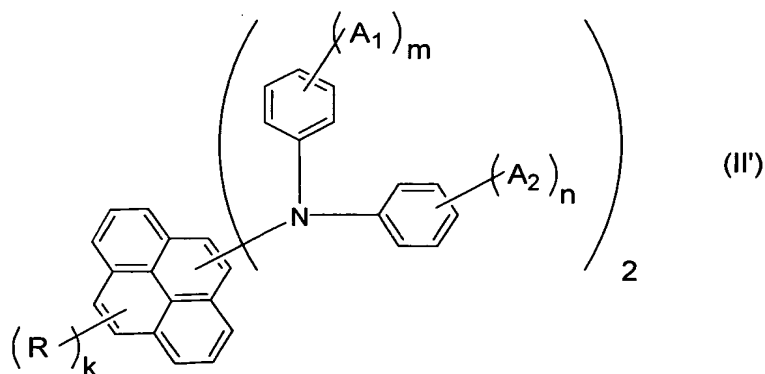
$A^1$  and  $A^2$  are each independently a hydrogen atom, a substituted or unsubstituted alkyl group having 1 to 50 carbon atoms, a substituted or unsubstituted aryl group having 5 to 50 carbon atoms, a substituted or unsubstituted aralkyl group having 1 to 50 carbon atoms, a substituted or unsubstituted cycloalkyl group having 3 to 50 carbon atoms, a substituted or unsubstituted alkoxy group having 1 to 50 carbon atoms, a substituted or unsubstituted aryloxy group having 5 to 50 carbon atoms, a substituted or unsubstituted arylamino group having 5 to 50 carbon atoms, a substituted or

unsubstituted alkylamino group having 1 to 20 carbon atoms, a cyano group or a halogen atom;  $m$  and  $n$  are each an integer of 0 to 5 wherein when  $m$  is 2 or more, a plurality of  $A^1$  groups may be the same with or different from each other and may be bonded to each other to form an saturated or unsaturated ring, and when  $n$  is 2 or more, a plurality of  $A^2$  groups may be the same with or different from each other and may be bonded to each other to form an saturated or unsaturated ring,

with the proviso that at least one of  $m$  and  $n$  is an integer of 2 or more; and

$p$  is an integer of 1 to 9, and when  $p$  is 2 or more, a plurality of groups being represented within the parenthesis ( ) <sub>$p$</sub>  of the general formula (I') may be the same with or different from each other, and ( $k + p$ ) is an integer of 10 or smaller.

8. An aromatic amine derivative represented by the following general formula (II'):



wherein  $R$  is a hydrogen atom, a substituted or unsubstituted alkyl group having 1 to 50 carbon atoms, a substituted or unsubstituted aryl group having 5 to 50 carbon atoms, a substituted or unsubstituted aralkyl group having 1 to 50 carbon atoms, a substituted or unsubstituted cycloalkyl group having 3 to 50 carbon atoms, a substituted or unsubstituted alkoxy group having 1 to 50 carbon atoms, a substituted or unsubstituted aryloxy group having 5 to 50 carbon atoms, a substituted or unsubstituted arylamino group having 5 to 50 carbon atoms, a substituted or unsubstituted alkylamino group having 1 to 20 carbon atoms, a cyano group or a halogen atom;  $k$  is an integer of 1 to 9, and

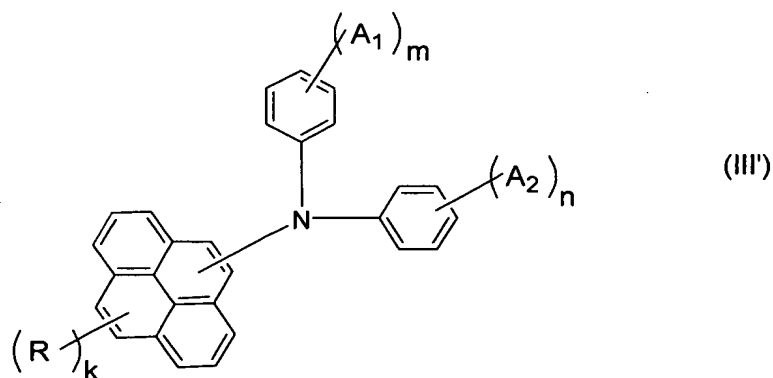
when  $k$  is 2 or more, a plurality of R groups may be the same with or different from each other;

$A^1$  and  $A^2$  are each independently a hydrogen atom, a substituted or unsubstituted alkyl group having 1 to 50 carbon atoms, a substituted or unsubstituted aryl group having 5 to 50 carbon atoms, a substituted or unsubstituted aralkyl group having 1 to 50 carbon atoms, a substituted or unsubstituted cycloalkyl group having 3 to 50 carbon atoms, a substituted or unsubstituted alkoxy group having 1 to 50 carbon atoms, a substituted or unsubstituted aryloxy group having 5 to 50 carbon atoms, a substituted or unsubstituted arylamino group having 5 to 50 carbon atoms, a substituted or unsubstituted alkylamino group having 1 to 20 carbon atoms, a cyano group or a halogen atom;  $m$  and  $n$  are each an integer of 0 to 5 wherein when  $m$  is 2 or more, a plurality of  $A^1$  groups may be the same with or different from each other and may be bonded to each other to form an saturated or unsaturated ring, and when  $n$  is 2 or more, a plurality of  $A^2$  groups may be the same with or different from each other and may be bonded to each other to form an saturated or unsaturated ring,

with the proviso that at least one of  $m$  and  $n$  is an integer of 2 or more; and

two groups being represented within the parenthesis  $( )_2$  of the general formula (II') may be the same with or different from each other.

9. An aromatic amine derivative represented by the following general formula (III'):



wherein R is a hydrogen atom, a substituted or unsubstituted alkyl group

having 1 to 50 carbon atoms, a substituted or unsubstituted aryl group having 5 to 50 carbon atoms, a substituted or unsubstituted aralkyl group having 1 to 50 carbon atoms, a substituted or unsubstituted cycloalkyl group having 3 to 50 carbon atoms, a substituted or unsubstituted alkoxy group having 1 to 50 carbon atoms, a substituted or unsubstituted aryloxy group having 5 to 50 carbon atoms, a substituted or unsubstituted arylamino group having 5 to 50 carbon atoms, a substituted or unsubstituted alkylamino group having 1 to 20 carbon atoms, a cyano group or a halogen atom; **k** is an integer of 1 to 9, and when **k** is 2 or more, a plurality of R groups may be the same with or different from each other;

**A**<sup>1</sup> and **A**<sup>2</sup> are each independently a hydrogen atom, a substituted or unsubstituted alkyl group having 1 to 50 carbon atoms, a substituted or unsubstituted aryl group having 5 to 50 carbon atoms, a substituted or unsubstituted aralkyl group having 1 to 50 carbon atoms, a substituted or unsubstituted cycloalkyl group having 3 to 50 carbon atoms, a substituted or unsubstituted alkoxy group having 1 to 50 carbon atoms, a substituted or unsubstituted aryloxy group having 5 to 50 carbon atoms, a substituted or unsubstituted arylamino group having 5 to 50 carbon atoms, a substituted or unsubstituted alkylamino group having 1 to 20 carbon atoms, a cyano group or a halogen atom; and **m** and **n** are each an integer of 0 to 5 wherein when **m** is 2 or more, a plurality of **A**<sup>1</sup> groups may be the same with or different from each other and may be bonded to each other to form an saturated or unsaturated ring, and when **n** is 2 or more, a plurality of **A**<sup>2</sup> groups may be the same with or different from each other and may be bonded to each other to form an saturated or unsaturated ring,

with the proviso that at least one of **m** and **n** is an integer of 2 or more.

10. An organic electroluminescent device comprising a cathode, an anode and one or plural organic thin film layers having at least a light emitting layer which are sandwiched between the cathode and the anode, wherein at least one of the organic thin film layers contains the aromatic amine derivative as claimed in any one of claims 1 to 9 in the form of a single substance or a

component of a mixture.

11. An organic electroluminescent device comprising a cathode, an anode  
and two or more organic thin film layers having at least a light emitting layer  
5 which are sandwiched between the cathode and the anode, wherein the organic  
thin film layers include an organic layer containing the aromatic amine  
derivative as claimed in any one of claims 1 to 9 as a main component which is  
provided between the anode and the light emitting layer.

10 12. An organic electroluminescent device comprising a cathode, an anode  
and one or plural organic thin film layers having at least a light emitting layer  
which are sandwiched between the cathode and the anode, wherein the light  
emitting layer contains the aromatic amine derivative as claimed in any one of  
claims 1 to 9 in an amount of 0.1 to 20% by weight.

15